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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/870,945	06/01/2001	Mikael Agnevik	2380-317	8708

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EXAMINER

LEE, ANDREW CHUNG CHEUNG

ART UNIT	PAPER NUMBER
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2664

DATE MAILED: 12/29/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 09/870,945	Applicant(s) AGNEVIK ET AL.	
	Examiner Andrew C Lee	Art Unit 2664	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 01 June 2001.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-50 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-50 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>Nov 05 2003</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Drawings

1. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(5) because they include the following reference character(s) not mentioned in the description: Fig. 2A, the referenced term 40_s. Corrected drawing sheets in compliance with 37 CFR 1.121(d), or amendment to the specification to add the reference character(s) in the description in compliance with 37 CFR 1.121(b) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The replacement sheet(s) should be labeled "Replacement Sheet" in the page header (as per 37 CFR 1.84(c)) so as not to obstruct any portion of the drawing figures. If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Specification

2. The disclosure is objected to because of the following informalities:
- Fig. 2A, there is a discrepancy for the term "40_s", It should be "40_{sync}" according to the information disclosed in the specification.
 - Page 15, line 9, the term "cheeper than" is a typo. It should be corrected as "cheaper than".

Appropriate correction is required.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 1 – 34, 37 – 50, are rejected under 35 U.S.C. 103(a) as being unpatentable over Stacey et al. (U.S. Patent No. 6834053 B1) in view of Graham et al. (U.S. Patent No. 6097722).

Regarding Claim 1, Stacey et al. discloses the limitation of a method of managing traffic for transport on an Asynchronous Transfer Mode (ATM) virtual path (VP) (Abstract, lines 1 – 8; column 19, claim 1, lines 28 – 45), Stacey et al. does not disclose expressly the method comprising: forming an AAL2 path group which comprises plural AAL2 paths; admitting connections based on available bandwidth of the AAL2 path group rather than available bandwidth of an individual AAL2 path; including, for transport on the virtual path (VP), ATM cells of a second type other than a first type of ATM cells which comprise the AAL2 path group. Graham et al. discloses the limitation of method comprising: forming an AAL2 path group which comprises plural AAL2 paths (Fig. 5A, elements 401, 403, 404); admitting connections based on available bandwidth of the AAL2 path group rather than available bandwidth of an individual AAL2 path (column 11, lines 2 – 7); including, for transport on the virtual path (VP), ATM cells of a second type other than a first type of ATM cells which comprise the AAL2 path group

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(column 11, lines 55 – 64). It would have been obvious to modify Stacey et al. to include a method comprising: forming an AAL2 path group which comprises plural AAL2 paths; admitting connections based on available bandwidth of the AAL2 path group rather than available bandwidth of an individual AAL2 path; including, for transport on the virtual path (VP), ATM cells of a second type other than a first type of ATM cells which comprise the AAL2 path group such as that taught by Graham et al. in order to manage an ATM switch dynamically and continuously that allows for greater use of the available capacity of networks and, particularly, transmission facilities within a network.

Regarding Claims 2, 13, 28, 42, Stacey et al. discloses the limitation of a method of claimed wherein the first type of ATM cells comprises AAL2 traffic cells (column 1, lines 47 – 50) and the second type of ATM cells comprises cells dedicated to at least one of signaling, operation and maintenance, and synchronization (column 2, lines 52 – 55).

Regarding Claims 3, 14, 29, 43, Stacey et al. discloses the limitation of a method of claimed wherein the second type of ATM cells comprises cells which require a guaranteed bandwidth (column 8, lines 47 – 54).

Regarding Claims 4, 15, 30, 44, Stacey et al. discloses the limitation of a method of claimed wherein the first type of ATM cells comprises AAL2 cells (Fig. 4, element 13) and the second type of ATM cells comprises non-AAL2 cells (Fig. 4, element “Non-

AAL2 ATM PDUs").

Regarding Claims 5, 16, 32, 45, Stacey et al. discloses the limitation of a method of claimed wherein the first type of ATM cells comprises AAL2 cells from AAL2 paths with differing QoS classes (Fig. 4, column 11, lines 53 – 65).

Regarding Claims 6, 17, 31, 46, Stacey et al. discloses the limitation of a method of claimed wherein the first type of ATM cells comprises AAL2 cells having an unspecified bit rate (UBR) (column 4, lines 8 – 16; lines 21 – 27) and the second type of ATM cells comprises AAL2 cells have a bit rate type other than UBR (column 3, lines 8 – 12).

Regarding Claims 7, 18, 33, 47, Stacey et al. discloses the limitation of a method of claimed wherein a given one of the AAL2 paths carries AAL2 cells having a same Quality of Service (QoS) requirement (column 11, lines 53 – 64).

Regarding Claims 8, 19, 34, 48, Stacey et al. discloses the limitation of a method of claimed further comprising allocating more delay-sensitive traffic to a different AAL2 path than less delay-sensitive traffic (column 11, lines 66 – 67; column 12, line 1).

Regarding Claims 9, 22, 39, 49, Stacey et al. discloses the limitation of a method of claimed further comprising providing differing treatment for differing AAL2

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connections within the AAL2 path group based on the QoS requirements for the differing AAL2 connections (Fig. 4, element 313; column 11, lines 56 – 67; column 12, lines 1 – 2).

Regarding Claims 10, 23, 40, 50, Stacey et al. discloses the limitation of a method of claimed further comprising providing a greater weighting or priority for more delay sensitive AAL2 connections (Fig. 4, column 11, lines 66 – 67; column 12, line 1).

Regarding Claims 11, 12, 24, 25, 41, Stacey et al. discloses the limitation of a node of an Asynchronous Transfer Mode (ATM) and a traffic scheduler (Abstract, lines 1 – 4). Stacey does not disclose ATM comprising: a plurality of AAL2 paths which together form an AAL2 path group wherein a connection being admitted to one of the AAL2 paths of the AAL2 path group is based on available bandwidth of the AAL2 path group rather than available bandwidth of an individual AAL2 path; a path group scheduler which selects ATM AAL2 cells from the plurality of AAL2 paths; a non-path group ATM virtual circuit (VC) which includes ATM cells of a second type other than the ATM cells of a first type which comprise the AAL2 path group; a scheduler which applies ATM cells of the path group and the non-path group ATM virtual circuit (VC) to an ATM virtual path (VP) for transmission to another node of the network. Graham et al. discloses the limitation of a node of an ATM comprising: a plurality of AAL2 paths which together form an AAL2 path group wherein a connection being admitted to one of the AAL2 paths of the AAL2 path group is based on available bandwidth of the AAL2 path

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group rather than available bandwidth of an individual AAL2 path (column 11, lines 2 – 7); a path group scheduler which selects ATM AAL2 cells from the plurality of AAL2 paths (column 3, lines 51 – 54); a non-path group ATM virtual circuit (VC) which includes ATM cells of a second type other than the ATM cells of a first type which comprise the AAL2 path group (column 12, lines 17 – 20); a scheduler which applies ATM cells of the path group and the non-path group ATM virtual circuit (VC) to an ATM virtual path (VP) for transmission to another node of the network (column 3, lines 33 – 37; columns 9 - 10, Table 1; column 9, lines 25 – 31). It would have been obvious to modify Stacey et al. to include a node of an ATM comprising: a plurality of AAL2 paths which together form an AAL2 path group wherein a connection being admitted to one of the AAL2 paths of the AAL2 path group is based on available bandwidth of the AAL2 path group rather than available bandwidth of an individual AAL2 path; a path group scheduler which selects ATM AAL2 cells from the plurality of AAL2 paths; a non-path group ATM virtual circuit (VC) which includes ATM cells of a second type other than the ATM cells of a first type which comprise the AAL2 path group; a scheduler which applies ATM cells of the path group and the non-path group ATM virtual circuit (VC) to an ATM virtual path (VP) for transmission to another node of the network such as that taught by Graham et al. in order to manage an ATM switch dynamically and continuously that allows for greater use of the available capacity of networks and, particularly, transmission facilities within a network.

Regarding Claims 20, 37, Stacey et al. discloses the limitation of an apparatus of

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claimed wherein the path group scheduler is a weighted fair queuing scheduler (Fig. 4, column 13, lines 38 – 40).

Regarding Claims 21, 38, Stacey et al. discloses the limitation of an apparatus of claimed wherein the path group scheduler is a strict priority scheduler (column 11, lines 66 – 67).

Regarding Claim 26, Stacey et al. discloses the limitation of a node of an Asynchronous Transfer Mode (ATM) (Abstract, lines 1 – 4). Stacey does not disclose expressly the apparatus of claimed, wherein the connection admission controller unit is situated at the first network node. Graham et al. discloses the limitation of the apparatus of claimed, wherein the connection admission controller unit is situated at the first network node (column 15, claim 2, lines 38 – 45). It would have been obvious to modify Stacey et al. to include a apparatus of claimed, wherein the connection admission controller unit is situated at the first network node network such as that taught by Graham et al. in order to manage an ATM switch dynamically and continuously that allows for greater use of the available capacity of networks and, particularly, transmission facilities within a network.

Regarding Claim 27, Stacey et al. discloses the limitation of a node of an Asynchronous Transfer Mode (ATM) (Abstract, lines 1 – 4). Stacey does not disclose expressly the apparatus of claimed wherein the connection admission controller unit is

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situated at the second network node. Graham et al. discloses the limitation of the apparatus of claimed, wherein the connection admission controller unit is situated at the second network node (column 15, claim 2, lines 38 – 45). It would have been obvious to modify Stacey et al. to include a apparatus of claimed, wherein the connection admission controller unit is situated at the second network node network such as that taught by Graham et al. in order to manage an ATM switch dynamically and continuously that allows for greater use of the available capacity of networks and, particularly, transmission facilities within a network.

5. Claims 35, 36 are rejected under 35 U.S.C. 103(a) as being unpatentable over Stacey et al. (U.S. Patent No. 6834053 B1) and Graham et al. (U.S. Patent No. 6097722) as applied to claims 1 – 34, 37 - 50 above, and further in view of Andersson et al. (U.S. Patent No. 6760335 B1).

Regarding Claim 35, both Stacey et al. and Graham et al. fail to disclose the apparatus of claimed wherein one of the first network node and the second network node is a base station node. Andersson et al. discloses the limitation of the apparatus of claimed wherein one of the first network node and the second network node is a base station node (Fig. 10, elements 116, 118, 122, 124; column 12, lines 1 – 3). It would have been obvious to modify both Stacey et al. and Graham et al. to include an apparatus of claimed wherein one of the first network node and the second network

node is a base station node such as that taught by Andersson et al. in order to provide dynamic AAL2 path allocation configuration in an ATM system/network.

Regarding Claim 36, both Stacey et al. and Graham et al. fail to disclose the apparatus of claimed wherein the one of the first network node and the second network node is a radio network controller node. Andersson et al. discloses the limitation of disclose the apparatus of claimed wherein the one of the first network node and the second network node is a radio network controller node (Fig. 10, elements 112, 114; column 12, lines 5 – 8). It would have been obvious to modify both Stacey et al. and Graham et al. to include disclose the apparatus of claimed wherein the one of the first network node and the second network node is a radio network controller node such as that taught by Andersson et al. in order to provide dynamic AAL2 path allocation configuration in an ATM system/network.

Conclusion

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Andrew C. Lee whose telephone number is (571) 272-3131. The examiner can normally be reached on Monday through Friday from 8:30am - 5:00pm.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Wellington Chin can be reached on (571) 272-3134. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

ACL / AU:2664

22 Dec 2004


A.R. Patel
Primary Examiner